Software Assurance Fall Forum
September 13, 2011

Rich Pethia
Director, CERT Program

Secure Coding Roadmap

Breadth of impact

2003

2012

Secure Design Patterns

University courses
- CMU
- Stevens Institute
- Purdue
- University of Florida
- Santa Clara University
- St. John Fisher College

SEI Secure Coding Course

Licensed to:
- Computer Associates
- Siemens

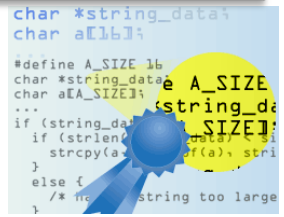
Open & free online course
- USC, Matt Bishop
- Stevens, Sven Dietrich
- CMU

Influence International Standard Bodies

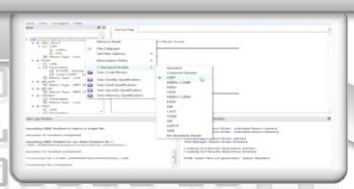
ISO IEC

WG14 C Secure Coding Rules Study Group

Analyzer conformance test



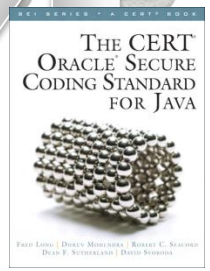
Adoption by Analyzer Tools
- LDRA
- Klocwork



SCALe Conformance Assessment

CERT CONFORMANCE TESTED Software Engineering Institute Carnegie Mellon

C++



Adoption by software developers and acquirers
- Cisco
- Raytheon
- NAVSEA
- Lockheed Martin Aeronautics
- General Atomics
- Qualcomm

Software Assurance Curriculum Project

Goals: Develop software assurance curricula & transition strategies

Masters of Software Assurance Reference Curriculum

Undergraduate Course outlines

MSwA Syllabi

August 2010

March 2011

Professional Society Recognition

IEEE

acm

Community Outreach
- AMCIS
- COMPSAC
- SSTC
- FISSEA
- CISSE keynote
- 170+ Members of SwA Ed

Integrated into course offerings
- Carnegie Mellon University
- Stevens Institute of Technology
- US Air Force Academy
- University of Detroit Mercy

Needs
- **MSwA course materials**
  - **Nine SwA core courses**
- **Curriculum Development**
  - **MSwA course descriptions for other degree programs**
  - **Undergraduate curriculum with specializations**
  - **High school needs**

2009

2013